

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-20 are pending in this case.

In the outstanding Office Action, Claims 1, 2, 5, 7-10, and 18-20 were rejected under 35 U.S.C. § 102(b) as anticipated by Sakakima, et al. (U.S. Patent No. 6,005,798, herein “Sakakima”); Claims 3-5 were rejected under 35 U.S.C. § 103(a) as unpatentable over Sakakima in view of Chang, et al. (U.S. Patent No. 5,294,287, herein “Chang”); Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Sakakima in view of Chang, further in view of Grollier, et al. (“Switching a spin valve back and forth by current-induced domain wall motion”, herein “Grollier”); Claims 11 and 12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Sakakima in view of Wang, et al. (U.S. Patent No. 6,713,195, herein “Wang”); Claim 13 was rejected under 35 U.S.C. § 103(a) as unpatentable over Sakakima in view of Chang, further in view of Wang; and Claims 14-17 were rejected under 35 U.S.C. § 103(a) as unpatentable over Sakakima in view of Zhu, et al. (U.S. Patent No. 5,734,605, herein “Zhu”).

Applicants respectfully traverse the rejections of the pending claims.

Claim 1 recites a “current injection-type magnetic domain wall-motion device comprising a microjunction structure including a first magnetic body, **a second magnetic body with a magnetization direction antiparallel to that of the first magnetic body**, and a third magnetic body sandwiched therebetween, wherein the **magnetization direction of the device is controlled** in such a manner that a **current is applied across microjunction interfaces present in the microjunction structure** such that a **magnetic domain wall is moved by the interaction between the magnetic domain wall and the current** in the same direction as that of the current or in the direction opposite to that of the current.”

Applicants respectfully note that, as set out in MPEP § 2131, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631. Further, “[t]he identical invention must be shown in as complete detail as is contained in the...claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236.

In this case, Sakakima fails to fully describe several features of Claim 1, as detailed below.

Sakakima describes a magnetoresistance effect device. As shown at Fig. 4 and described at column 14, lines 26-27, of Sakakima, current is caused to flow through a conductor line 5.

As described at column 14, lines 27-32, in the memory device, magnetization of magnetic film 1', asserted to teach the first and second magnetic bodies as defined by Claim 1, is inverted by the magnetic field produced by the current, and information is stored in accordance with the direction of the magnetization of the magnetic film 1'.

As described at column 15, lines 53-60, of Sakakima, to amplify output, an alternating weak current is caused to flow through the conductor line 5, which does not cause a rotation of the magnetization of the magnetic film 1', asserted to teach the first and second magnetic bodies as defined by Claim 1, but does cause a rotation of the magnetization of the magnetic film 3, asserted to teach the third magnetic body as defined by Claim 1.

However, **current flow through the conductor line 5** is clearly depicted, at Fig. 4 of Sakakima, to be along the top of the memory and amplifying device, **rather than “applied across microjunction interfaces** present in the microjunction structure,” as recited by Claim 1.

Additionally, as shown at Figures 7A and 7B, which are cited by the outstanding Office Action, at page 2, the two magnetic films 1' that are asserted to teach the **first and**

second magnetic bodies as defined by Claim 1 are not formed “**with a magnetization direction antiparallel,**” as recited by Claim 1. Instead, as shown at Figures 7A and 7B and described at column 15, lines 23-38, of Sakakima, the number of magnetic films 1' in which magnetization is inverted relates to the value being stored in the multivalued memory device.

Further, Claim 1 recites that “**magnetization direction of the device is controlled.**” However, consideration of Sakakima as a whole, as required by MPEP § 2141, and as described above clearly shows that Sakakima cannot control magnetization direction of the device even if magnetization of the soft magnetic film 3 and movement of magnetic domain walls is mentioned in reference to the amplifying operation.

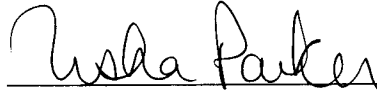
Because Sakakima does not fully describe at least the above-discussed features of Claim 1, as required by MPEP § 2131, Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) of Claim 1 and Claims 2, 5, 7-10, and 18-20, which depend therefrom, be withdrawn.

Claims 3-6 and 11-17 depend from Claim 1 and, therefore, patentably define over Sakakima for at least the same reasons as Claim 1. Further, Chang, Grollier, Wang, and Zhu, which are additionally asserted against Claims 3-6 and 11-17, fail to cure the above-discussed deficiencies of Sakakima at least with regard to Claim 1. Thus, Applicants respectfully request that the rejections of Claims 3-6 and 11-17 under 35 U.S.C. § 103(a) be withdrawn.

Accordingly, the outstanding rejections are traversed and the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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